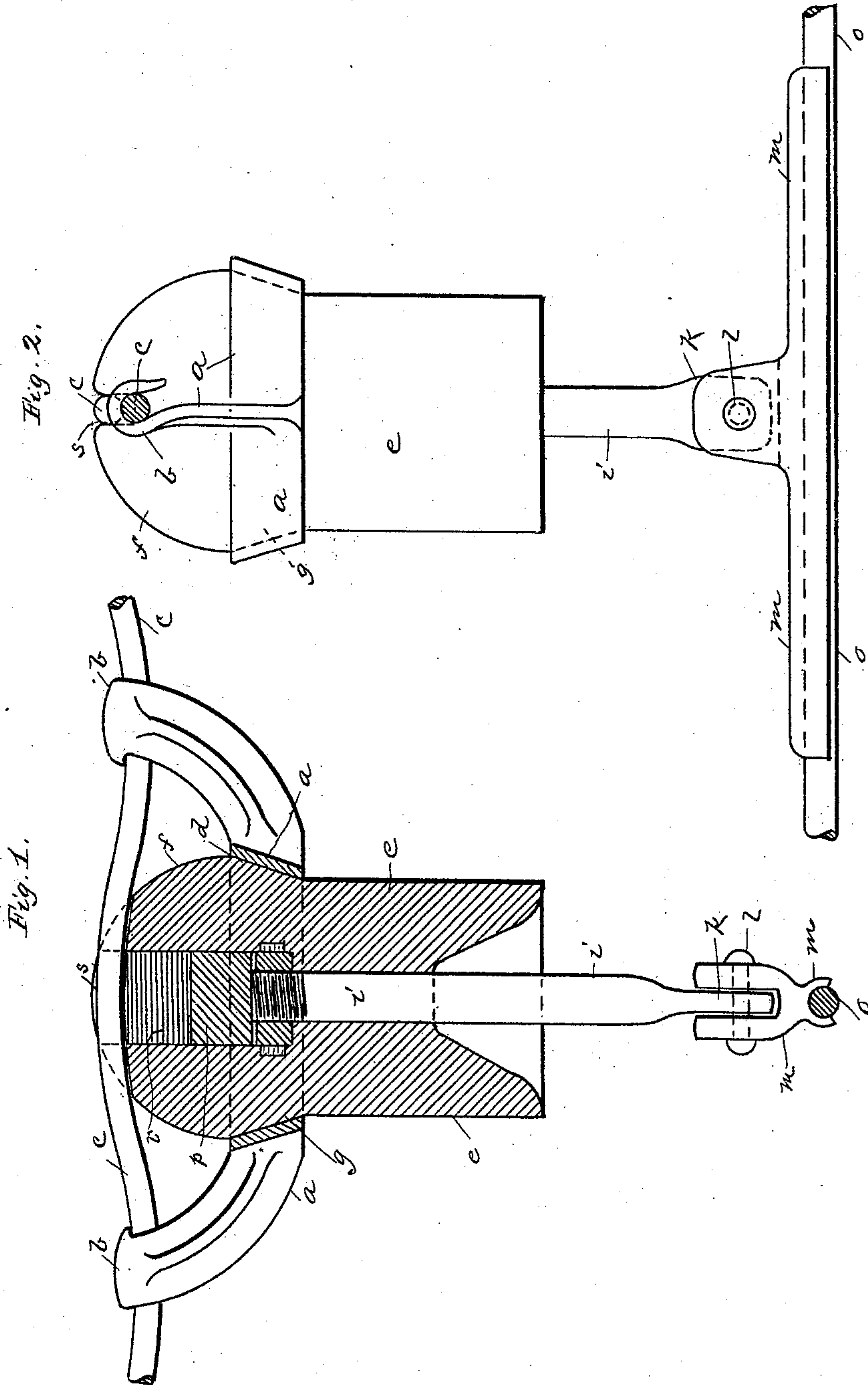


(No Model.)

W. M. RAMSEY.
TROLLEY LINE INSULATOR.

No. 443,005.

Patented Dec. 16, 1890.



Witnesses:
H. Harrison,
Chas. Richardson

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UNITED STATES PATENT OFFICE.

WILLIAM M. RAMSEY, OF ALLEGHENY, PENNSYLVANIA.

TROLLEY-LINE INSULATOR.

SPECIFICATION forming part of Letters Patent No. 443,005, dated December 16, 1890.

Application filed August 7, 1890. Serial No. 361,348. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM M. RAMSEY, a citizen of the United States, residing at Allegheny, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Trolley-Line Insulators; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to an improved trolley-line insulator; and it consists in the peculiar construction and arrangements of parts, as will be fully described hereinafter.

In the accompanying drawings, Figure 1 is a sectional end elevation of my improved insulator, which is constructed in accordance with my invention. Fig. 2 is a side elevation of the same.

To put my invention into practice, I use a bracket *a*, of suitable size and form of construction and provided with two upwardly-projecting hooks *b*, which are adapted to connect with a supporting-wire *c*, stretched or suspended by means of posts across the line of track. This bracket *a* is provided with a tapering cylindrical opening *d*, in which is placed a cylindrical wooden block *e*, having a rounded top *f* and a tapering portion *g*, which neatly fits the opening *d*, formed in the bracket *a*. Formed in the top of this block *e* and extending about one-half the depth of

the same is a cylindrical recess, in which a circular nut of a bolt *i* rests. This bolt *i* extends through the block and projects downward a short distance, and is provided with a flattened portion *k*, through which a rivet-hole is formed. Attached by means of a rivet *l* to this bolt *i* is a shoe or clamp *m*, which is secured to the trolley-line wire *o* and serves to support the same over the line of track. Above the nut of the bolt *i* the cylindrical recess is filled with a non-conducting material *p* and a wooden plug *v*. Formed across the rounded top of this insulator *e* is a groove *s*, which is above the hooks *b*, and in which the supporting-wire *c* rests and forms a kink or bend in said wire *c*, thereby forming a rigid connection.

Having thus described my invention, I claim—

The herein-described trolley-line insulator, consisting of the bracket *a*, having a tapering circular opening formed therein and upwardly-extending hooks *b*, a cylindrical block *e*, confined in said opening, a bolt *i*, secured therein, and a shoe or clamp *m*, attached to said bolt *i*, substantially as shown and described.

In testimony that I claim the foregoing I hereunto affix my signature this 18th day of July, A. D. 1890.

WILLIAM M. RAMSEY. [L. S.]

In presence of—

M. E. HARRISON,
CHARLES LARGE.